**IN THE CLAIMS:**

Please cancel originally-filed claims 1-13, and add new claims 14-72 as provided below. The listing of these claims are provided as follows, on separate sheets:

Claims 1-13 (Cancelled).

14. (New) A catalyst for producing hydrocarbon from a syngas, comprising:

a catalyst support on which a metallic compound is loaded, wherein an impurity content of a catalyst is in a range of approximately 0.01 mass% to 0.15 mass%.

15. (New) The catalyst according to claim 14, wherein an alkali metal or an alkaline-earth metal content in the catalyst support is in a range of approximately 0.01 mass% to 0.1 mass%.

16. (New) The catalyst according to claim 15, wherein the catalyst support simultaneously satisfies a pore diameter in a range of approximately 8 nm to 50 nm, a surface area in a range from 80 $m^2/g$ to 550 $m^2/g$ and a pore volume in a range from 0.5 mL/g to 2.0 mL/g.

17. (New) The catalyst according to claim 14, wherein the catalyst support simultaneously satisfies a pore diameter in a range of approximately 8 nm to 50 nm, a surface area in a range from 80 $m^2/g$ to 550 $m^2/g$ and a pore volume in a range from 0.5 mL/g to 2.0 mL/g.

18. (New) The catalyst according to claim 14, wherein the catalyst support allows the catalyst to have a fractured or pulverized ratio of at most 10% when an ultrasonic wave is emitted for a predetermined time period at a room temperature to the catalyst dispersed in water.

19. (New) The catalyst according to claim 15, wherein the catalyst support allows the catalyst to have a fractured or pulverized ratio of at most 10% when an ultrasonic wave is

emitted for a predetermined time period at a room temperature to the catalyst dispersed in water.

20. (New) The catalyst according to claim 16, wherein the catalyst support allows the catalyst to have a fractured or pulverized ratio of at most 10% when an ultrasonic wave is emitted for a predetermined time period at a room temperature to the catalyst dispersed in water.

21. (New) The catalyst according to claim 14, wherein the catalyst support is silica having a spherical shape.

22. (New) The catalyst according to claim 15, wherein the catalyst support is silica having a spherical shape.

23. (New) The catalyst according to claim 16, wherein the catalyst support is silica having a spherical shape.

24. (New) The catalyst according to claim 17, wherein the catalyst support is silica having a spherical shape.

25. (New) The catalyst according to claim 18, wherein the catalyst support is silica having a spherical shape.

26. (New) The catalyst according to claim 19, wherein the catalyst support is silica having a spherical shape.

27. (New) The catalyst according to claim 20, wherein the catalyst support is silica having a spherical shape.

28. (New) The catalyst according to claim 14, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

29. (New) The catalyst according to claim 15, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

30. (New) The catalyst according to claim 16, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

31. (New) The catalyst according to claim 17, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

32. (New) The catalyst according to claim 18, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

33. (New) The catalyst according to claim 19, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

34. (New) The catalyst according to claim 20, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

35. (New) The catalyst according to claim 21, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

36. (New) The catalyst according to claim 22, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

37. (New) The catalyst according to claim 23, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

38. (New) The catalyst according to claim 24, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

39. (New) The catalyst according to claim 25, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

40. (New) The catalyst according to claim 26, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

41. (New) The catalyst according to claim 27, wherein the metallic compound contains at least one of iron, cobalt, nickel or ruthenium.

42. (New) The catalyst according to claim 28, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

43. (New) The catalyst according to claim 29, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

44. (New) The catalyst according to claim 30, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

45. (New) The catalyst according to claim 31, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

46. (New) The catalyst according to claim 32, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

47. (New) The catalyst according to claim 33, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

48. (New) The catalyst according to claim 34, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

49. (New) The catalyst according to claim 35, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

50. (New) The catalyst according to claim 36, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

51. (New) The catalyst according to claim 37, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

52. (New) The catalyst according to claim 38, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

53. (New) The catalyst according to claim 39, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

54. (New) The catalyst according to claim 40, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

55. (New) The catalyst according to claim 41, wherein the metallic compound is made from a precursor of metallic compound of at least one of an alkali metal or alkaline-earth metal content of at most 5 mass%.

56. (New) A method for producing a catalyst which comprises a catalyst support on which a metallic compound is loaded, wherein an impurity content of a catalyst is in a range of approximately 0.01 mass% to 0.15 mass%, the method comprising:

pre-treating the catalyst support to lower an impurity concentration of the catalyst support; and

loading the metallic compound on the catalyst support after the pretreatment step.

57. (New) The method according to claim 56, wherein the pretreatment step includes rinsing the catalyst support using at least one of acid or an ion-exchanged water.

58. (New) The method according to claim 56, further comprising preparing the catalyst using the catalyst support obtained by rinsing water of an alkali metal or alkaline-earth metal content of at most 0.06 mass% during the production of the catalyst support.

59. (New) The method according to claim 57, further comprising preparing the catalyst using the catalyst support obtained by rinsing water of an alkali metal or alkaline-earth metal content of at most 0.06 mass% during the production of the catalyst support.

60. (New) The method according to claim 56, further comprising shaping the catalyst support to have a spherical shape using a spraying technique.

61. (New) The method according to claim 57, further comprising shaping the catalyst support to have a spherical shape using a spraying technique.

62. (New) The method according to claim 58, further comprising shaping the catalyst support to have a spherical shape using a spraying technique.

63. (New) The method according to claim 59, further comprising shaping the catalyst support to have a spherical shape using a spraying technique.

64. (New) The method according to claim 56, wherein the catalyst support is silica.

65. (New) The method according to claim 57, wherein the catalyst support is silica.

66. (New) The method according to claim 58, wherein the catalyst support is silica.

67. (New) The method according to claim 59, wherein the catalyst support is silica.

68. (New) The method according to claim 60, wherein the catalyst support is silica.

69. (New) The method according to claim 61, wherein the catalyst support is silica.

70. (New) The method according to claim 62, wherein the catalyst support is silica.

71. (New) The method according to claim 63, wherein the catalyst support is silica.

72. (New) A method for producing hydrocarbon, comprising:

generating the hydrocarbon from a syngas using a catalyst which is in a range of approximately 0.01 mass% to 0.15 mass%.